

REMARKS

The foregoing amendments and the following remarks are in response to the Office Action dated September 18, 2008 (hereinafter "Office Action"). This amendment is timely filed.

At the time of the Office Action, claims 1 and 3-5 were pending. Claims 1-3 and 5 were rejected under 35 U.S.C. §103. The rejections are discussed in more detail below. Claims 2 and 4 are canceled herein. Claims 1 and 5 are currently amended. Support for the amendments may be found in the specification as filed or as more specifically described below. No new matter has been added.

I. Rejections to the claims based upon Art

Claims 1 and 3-5 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,770,312 to Yamamoto et al. ("Yamamoto") for the reasons of record in the Office Action dated February 27, 2008. Applicant submits that the pending claims are patentable over these references.

In particular, Applicant notes the word "risotto" is sometimes inappropriately used to refer to rice dishes other than traditional risotto, usually plain boiled rice to which a condiment is added (in the same way that a pasta sauce is added to cooked pasta, for example), to pilaf, or to paella-like dishes. It appears that such a misunderstanding has occurred here.

The definition of a traditional risotto and its method of preparation is set forth on pages 154 and 155 of The Classic Italian Cookbook by Marcella Hazan, which is enclosed in an Appendix hereto. Under the heading "The basic risotto technique", the main and essential procedural steps are outlined as follows:

- 1) sautéing chopped onion in butter and/or oil until the onion is very lightly colored;
- 2) adding rice and sautéing it for one to two minutes while stirring so that the rice is well coated with the oil and/or butter; and
- 3) adding simmering broth (together with any additional ingredients) and stirring while cooking until the rice absorbs the liquid and then adding more simmering broth while stirring constantly and repeating the sequence until the rice is cooked.

The sautéing of raw rice has the desired effect of browning the rice, rendering it translucent, and developing a particular aroma. The translucency is caused by the rice grain starch forming a gel upon heating. An effect of this transformation is that the rice grain will absorb water more slowly, thus affecting the cooking time and cooking profile of the rice grain. The outer parts of the rice grain take on a glassy texture, and a creamy texture is developed around the rice grains. The result is a creamy blend where the rice grains remain separate from one another and firm.

The point of the gradual addition of broth (together with any additional ingredients) is to cause the rice to absorb, a little at a time, enough hot broth until it swells and forms a creamy blend of tender, yet firm grains. Stirring must be carried out continually throughout the preparation of risotto, wiping the bottom and the sides of the pot to prevent the rice from sticking. Liquid should be added to the rice gradually, as it dries out, but the rice should not be "drowned" in excess liquid. "Risotto is not boiled rice." It is important never to cook the risotto with too much liquid at one time and to bring it to its final tender but firm-to-the-bite stage so that it is creamy but not saturated.

During cooking, the surface of the rice should not be covered by more than a veil of broth. The constant stirring demanded by the procedure is important not only to avoid that the rice grains stick to the pot, but also because it helps the transformation of the starch in the rice grain.

The correct degree of heating is very important in making risotto. It should be very lively, but not so much that the rice grains will not cook evenly. If the heat is too low, then the rice becomes gluey. Risotto usually cooks in about 30 minutes. It is best to use a thick bottomed pot, as this ensures a more uniform distribution of the heat and hence of the cooking.

The rice is prepared when the rice is tender but "al dente", meaning that it is firm to the bite. When cooked, the rice grains should be creamy bound together, neither dry nor runny. A traditional risotto is done when the grains are soft on the outside and slightly crunchy on the inside. Risotto, essentially, is a rice dish that makes its own sauce (see also <http://www.wisegeek.com/how-can-i-make-risotto.htm>, a printout of which is also attached).

Gualtiero Marchesi, one of the most renowned Italian chefs, explains on page 153 of his book *Oltre la tavola* (a copy and translation of which is attached hereto), that a risotto will never be "al dente" unless the initial sautéing is carried out. This is because the caramelization of the superficial starch protects the grain during the cooking. Moreover,

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unless such caramelization were carried out, the rice grains would be susceptible to rupture during the constant stirring required by risotto making. A translation of the relevant passage is enclosed. It should be emphasized that, due to the critical role that starch behavior and release have in the determination of the texture of the final risotto, it is strongly discouraged to rinse the rice before setting out to prepare a risotto, as this would wash away the starch.

For the foregoing reasons, it is submitted that the traditional risotto of claim 1 of the present application clearly implies that the risotto making method must at least include the steps of: sautéing the rice in oil and/or butter, and onion; gradually adding broth to the browned rice while stirring; and repeating the addition of broth and stirring continually until the rice is done "al dente". The risotto of the present claims is true to the Italian tradition of risotto making and the word "risotto" in the claim and in the application must not be interpreted as shorthand for "boiled rice with sauce" or any other rice-based dish. It is important that this distinction is made because the inventiveness of the present application cannot be appreciated unless one understands and acknowledges the difference between a proper risotto and other rice-based dishes.

The various procedural steps that must be observed in the preparation of risotto, in fact, have a precise purpose in view of the final result and render the outcome very particular and different to other rice-based dishes. These differences are in the flavor, the texture, and the cooking profile of the rice grains.

Risotto is a naturally creamy and delicate blend of rice, sauce and seasoning. Unlike, for example, plain boiled rice with added sauce, therefore, it poses a series of technological difficulties upon freezing, particularly in terms of the maintenance of its rheological and organoleptic properties. There is no obvious way of achieving freezing of a traditional risotto without compromising its palatability.

As for the physical characteristics of the cooked risotto rice grain, these are necessarily very different from those of other rice-based dishes. Whereas a grain of plainly boiled rice, for example, is homogeneously cooked throughout and has a somewhat elastic or gummy texture, a risotto rice grain must be "al dente" at the core and have a glassy texture at the outer part. The texture of risotto rice is partly given by the variety of rice recommended for use in risotto making, and partly by the cooking process. Risotto rice should not be gummy or gluey.

As for taste, the risotto grain incorporates the aroma of the ingredients composing the recipe, throughout the whole grain, making risotto homogenous in taste. On the other hand, plain boiled rice mixed with sauce has a flavor that is discernible from that of its condiment.

All these considerations should be taken into account during the assessment of obviousness.

Turning now to the rejection based on *Yamamoto*, the Applicant notes that *Yamamoto* solves the problem of providing a process for manufacturing efficiently products by means of individual quick freezing, in which a major ingredient such as rice grains and pasta pieces are mixed homogeneously with a sauce. More particularly, the object of the invention is to provide an unconventional frozen food product of high added value, which enables consumers to unfreeze by such a simple and easy way and which gives a stable quality even when it is packaged portionwise to facilitate portion control (column 2, lines 23 to 36).

The key of the *Yamamoto* disclosure is that each cooked rice grain is covered in two distinct layers of different sauce compositions: the innermost layer (primary sauce) has a higher sugar content and a lower water activity and serves as a water-migrating layer, whereas the outermost layer (secondary sauce) has a higher water content, so that any cohesion between rice grains can be easily ruptured. Upon thawing and cooking, the two sauces blend to form the desired condiment.

The underlying principle of *Yamamoto* is that the rice grains should be frozen individually so that, upon use, they can be poured out, each rice grain carrying the appropriate amount of sauce. Any additional ingredients are added to the packaging (column 4, lines 53-59). In this respect, *Yamamoto* fails to deliver a frozen portion containing the appropriate ratio of the ingredients, as some ingredients are packaged separately or are added loosely.

Moreover, applicant emphasizes that any reference to the product of *Yamamoto* being packaged portionwise (as at column 2, lines 32-36 and column 9, lines 16-20) is too vague to be clearly interpreted as it could easily refer to the packaging of the loose/individual rice grains in single-portion bags.

The presently claimed method and risotto product differ in this respect because the procedure of making traditional risotto does not allow the formation of two distinct layers of different content around the rice grain. This simply cannot occur. As explained above, also, traditional risotto is characterized by the fact that the sauce has merged within the rice grain and is not solely found on the outside of the rice grain. The structure of the cooked rice grain

will thus be inevitably different to that described in *Yamamoto* and will thus have a different freezing profile and, as a consequence, freezing requirements.

Moreover, the frozen risotto of the present application is packaged in the form of drop-shaped portions. This is convenient because the cooked risotto has a creamy texture and there would be no technological advantage in separating the individual rice-grains. Discrete drop-shaped portions are, instead, more suitable. *Yamamoto*, on the other hand, teaches away from aggregating the rice grains in blocks (see column 1, lines 52-57 and column 6, lines 28-39).

Furthermore, risotto can include particulate ingredients (e.g. vegetable chunks, seafood, etc), depending on the specific recipe. In order to maintain the composition of the original recipe and to avoid the particulate ingredients from detaching and becoming loose in the packaging, it is advantageous to freeze the risotto in discrete portions, so that each portion contains the correct ratio of each ingredient.

This is not the case in *Yamamoto*, where additional ingredients are added to the packaging separately, as pointed out above. In fact, one cannot associate particulate ingredients to individually frozen rice grains, as the former would easily detach. *Yamamoto* solves the problem of providing rice grains carrying the appropriate amount of sauce, but does not solve the problem of providing easy portioning of a rice-dish wherein the portions contain the appropriate ratio of all the ingredients (as recited in claim 5 of the present application).

Yamamoto describes that the process for manufacturing the frozen food product described therein includes a primary sauce mixing step where a primary sauce is admixed to a major ingredient such as a rice boiled after washing or impregnation with water. There follows a freezing step, and then a secondary sauce mixing step, and a second freezing step. It should be noted that in *Yamamoto* the first mixing step may be carried out during the cooling step (column 4, lines 36 to 41).

Moreover, it should be noted that in *Yamamoto* the rice grains are always pre-treated with water prior to their admixture with any other ingredient, either by boiling or by impregnation or washing. As discussed earlier, this is not the case in traditional risotto-making, where the rice is sautéed with oil or butter and onion prior to the addition of the broth. The function and importance of this procedural step has already been emphasized above.

As already stated in the previous response, *Yamamoto* does not contemplate a step of sautéing raw rice in oil or butter and onion, followed by the addition of broth, a sauce and/or further ingredients, with stirring.

It is clear that the above description of the product by *Yamamoto* is such that a traditional risotto does not fall within the scope of the teaching contained therein. The method steps described are incompatible with the traditional risotto making technique. Moreover, none of the examples in *Yamamoto* disclose a product that can be defined as a traditional risotto. This further corroborates applicants understanding that the word "risotto" is used inappropriately in this disclosure.

The method recited in the present claims comprises the steps of: preparing the risotto according to the traditional recipe; rapidly cooling the risotto to 0° to 4°C; dosing and shaping the risotto; ultra-fast freezing the risotto; and finally packaging.

The risotto of the present application is a particulate material highly susceptible to textural deterioration. This is because the risotto is prepared traditionally and brought to the optimal cooking degree. Any further or excessive post-cooking handling or temperature variation is bound to affect the texture of the rice causing the latter to be overcooked and the risotto to lose its pleasant organoleptic properties.

It is not an exaggeration to state that, were the risotto of the invention processed as described in *Yamamoto*, which involves extensive handling and temperature shifts, the end user would be faced with a sub-standard unappetizing risotto, having a gluey and mushy texture. This would, of course, be unacceptable.

In addition, from a more strictly technological perspective, the skilled person would have to consider the microbiological safety of the product. This is because *Yamamoto* exposes the rice to quite some temperature variation prior to the final freezing and the rice is never cooled to a microbiologically safe temperature prior to freezing. We learn this from column 4, lines 36 to 41, where it is specified that the cooling step involves ambient temperatures and not refrigeration temperatures. The teaching of *Yamamoto* is potentially microbiologically unsafe when applied to starchy particulate materials and it would be unwise to adopt it in the process of the present application.

Particulate materials, in fact, especially non-acid particulate starchy materials, such as rice, pose many challenges to the food industry in terms of both the preservation of the organoleptic properties (and thus consumer appeal) and microbiological safety.

Bacillus cereus, for instance, is a bacterium that has often been implicated in food contamination outbreaks caused by prolonged storage of cooked rice at room temperature (see <http://www.nzfsa.govt.nz/science/data-sheets/bacillus-cereus.pdf>, a printout of which is attached hereto)

The technical problem of the present application is the provision of a traditional risotto (and not "rice based dishes"), which is easy to portion and wherein each portion is representative of the intended recipe by containing the appropriate ratio of all the ingredients, and which maintains unaltered the textural properties of the freshly cooked upon thawing and serving.

In other words, the challenge resides in the ability to provide an industrial scale process which enables to successfully freeze portions of traditional risotto to give frozen traditional risotto portions that are true to the optimal organoleptic and textural characteristics expected of traditional risotto.

A suitable procedure has been devised according to the present claims, which consists in rapidly cooling the risotto to 0° to 4° C as soon as it has been prepared, so as to interrupt the cooking of the rice grains exactly at the desired point. Without cooling, in fact, the risotto would continue to release starch and would become gluey and overcooked. From an organoleptic point of view, this step is thus important.

The cooling step achieves the further purpose of conferring the risotto the most suitable viscosity for dosing, as the risotto becomes more viscous and thus easier to neatly and cleanly dose in discrete portions. The cooling temperature is between 0 and 4 °C. At this temperature, it is microbiologically safe to rapidly dose the rice and proceed to ultra-freezing. Additionally, ultra-freezing to, for example, -20 °C, achieves quick freezing of the portioned risotto without altering the texture of the rice grains.

A person having prepared a traditional risotto and wishing to freeze it in the most effective way, so as to provide portions that contain the appropriate ratio of all the ingredients while preserving its organoleptic characteristics, would not look to *Yamamoto*, because of all the incompatibilities outlined above. However, if he did so, he would not obtain the product of the present application. In fact, if the skilled person followed the method by *Yamamoto*, he would achieve the preparation of boiled rice surrounded by two layers of different sauccs. As thoroughly explained above, this product would not be a traditional risotto, and would thus not solve the problem of the present invention.

If, on the other hand, the skilled person prepared a traditional risotto, and then proceeded to apply the method of *Yamamoto*, by applying layers of additional sauce on the individual rice grains, the final product would not reflect the traditional risotto recipe.

The skilled person, in fact, would be forced to add additional sauce layers, via additional and useless process steps, to the rice grains of a dish which is already optimal. This would compromise the characterizing organoleptic properties of the dish, as the smooth blend would be discontinued to perform the steps of *Yamamoto*. Moreover, the recipe would be altered by the additional layers and the final product would contain more sauce than actually required.

Moreover, the grains would be individually frozen, any particulate material would become detached, altering the ingredient ratio. This product would be different to that of the present invention and it would not solve the problem set out by the present invention. In any case, the prolonged waiting time at room temperature and the temperature shifts caused by the two freezing steps would expose the product to organoleptic deterioration and microbial hazards.

Assuming that the rice grains prepared according to *Yamamoto* were aggregated prior to freezing, this could embrace two options: that the rice aggregates were processed as in *Yamamoto* prior to aggregation or after aggregation of the rice grains. In the first case, the brittle outer sauce layer surrounding each rice grain would cause the aggregate to fall apart (see column 6, lines 28-39), lose any associated particulate material and fail to solve the problem of the present invention. In the second case, the core of the aggregate would lack condiment (or have a different condiment) and the product would thus not be a risotto, thus failing to solve the problem of the invention. Either way, the prolonged waiting time at room temperature and the temperature shifts caused by the two freezing steps would expose the product to organoleptic deterioration and microbial hazards. Moreover, in the second case, the rice grains at the core would undergo a different temperature profile and a different exposure to humidity, compared to the outer rice grains, thus causing a dishhomogeneous product, which is not compatible with the definition of a traditional risotto.

It is thus clear that the teachings of *Yamamoto* are not suitable for the application on risotto and that, on the contrary, this method would be unsuitable, lengthy, and more complicated than that of the present invention, and would invariably lead to poor results. It can thus be concluded that the present claims are not obvious in view of *Yamamoto*.

Reconsideration is thus respectfully requested, and prompt issuance of a Notice of Allowance is sought.

II. Conclusion

Applicant has made every effort to present claims which distinguish over the prior art, and it is thus believed that all claims are in condition for allowance. Nevertheless, Applicants invite the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. In view of the foregoing remarks, Applicants respectfully request reconsideration and prompt allowance of the pending claims.

The Commissioner for Patents and Trademarks is hereby authorized to charge the amount due for any retroactive extensions of time and any deficiency in any fees due with the filing of this paper or credit any overpayment in any fees paid on the filing or during prosecution of this application to Deposit Account No. 50-0951.

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